AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (Original) A method of locating, in a reference plane, an edge that is disposed at the junction between two surfaces that are substantially plane, said reference plane being substantially perpendicular to the surfaces, said method comprising the following stages:

a) transmitting waves from at least one transmitter disposed in the reference plane, said transmitter having a transmit solid angle that enables at least some transmitted waves to reach both of the surfaces on either side of said edge;

b) receiving the echoes of the waves transmitted by the transmitter in at least two receivers which are disposed in the reference plane such that one of the receivers essentially receives the waves reflected by one of the surfaces while the other receiver essentially receives the signals reflected by the other surface, the positions of the receivers and of the transmitter in the reference plane being known by construction;

c) analyzing the energy of the signal received by each receiver to determine the value of the angle of inclination between the main transmit axis of the transmitter and the normal to the surface that has reflected the waves picked up by said receiver;

d) computing the position in the reference plane of the point of impact of the waves on each surface by measuring the travel time of the signal transmitted by the transmitter and received by each receiver; and

e) locating said edge in the reference plane by computing the point corresponding to the intersection of the straight lines passing through the two points of impact and forming respective angles with the main transmit axis of the transmitter.

2. (Original) A location method according to claim 1, wherein, during stage c), the angle of inclination is determined by computing the gradient of the curve representing the normalized energy of the signal received by said receiver over time, said gradient being a function of the angle of inclination and satisfying a relationship predetermined by experimental measurements.

3. (Original) A location method according to claim 1, wherein the transmitter and the receivers are ultrasonic.

4. (Original) A location method according to claim 1, wherein said edge is the edge coping of a boarding platform, and the reference plane is carried by a rail vehicle having a moving step.

5. (Original) A location method according to claim 1, wherein the waves are transmitted from a single transmitter disposed mid-way between two receivers while being in alignment with them.

6. (Previously Presented) Apparatus for locating, in a reference plane, an edge disposed at the junction between two surfaces by the method of claim 1, said apparatus comprising at least one transmitter and at least two receivers disposed in the reference plane, said transmitter having a transmit solid angle making it possible for at least some waves transmitted by said transmitter to reach both of two surfaces on either side of said edge, said receivers being disposed in the reference plane such that one of the receivers essentially receives the waves reflected by one of the surfaces while the other receiver essentially receives the signals reflected by the other surface, the positions of said transmitter and of said receivers in the reference plane being known by construction.

7. (Original) Location apparatus according to claim 6, wherein the edge is the edge coping of a boarding platform, and the reference plane is carried by a rail vehicle having a moving step.

8. (Original) Location apparatus according to claim 7, wherein said moving step supports a single transmitter and two receivers disposed in a plane perpendicular to the

longitudinal axis of the rail vehicle, said receivers being disposed on either side of the transmitter while being in alignment on a straight line inclined relative to the vertical.

9. (Original) Location apparatus according to claim 8, wherein said straight line on which the receivers and the transmitter are in alignment is inclined by about 30° relative to the vertical.

10. (Original) Location apparatus according to claim 9, wherein said transmitter and said receivers are ultrasonic transducers.

11. (Previously Presented) A location method according to claim 1 further comprising a step of guiding a moving element relative to an edge disposed at junction between two substantially plane surfaces, wherein said step of guiding includes a location stage during which the edge is located.

12. (Previously Presented) A location method according to claim 11, wherein said location stage is performed iteratively while the moving element is being guided relative to the edge.

13. (Currently Amended) A location method according to claim 12, wherein said moving element is a step on a rail vehicle and the edge is the edge coping of a platform, said step

supporting a single transmitter and two receivers disposed in a plane perpendicular to the longitudinal axis of the rail vehicle, the receivers being disposed on either side of the transmitter while being in alignment on a straight line inclined relative to the vertical.

14. (Previously Presented) A location method according to claim 13, wherein, when the location method does not make it possible to locate the platform edge coping, the travel times of the waves transmitted by the transmitter and received by the receivers after being reflected off the platform are compared to determine whether the step is situated above or below the platform edge coping.